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NEWS	2	Dec 17	Expanded CAplus Coverage of US, Japanese, WIPO, EPO, and German patents
NEWS	3	Feb 1	Addition of Machine-Translated Abstracts to CAplus
NEWS	4	Feb 28	Patent Information Now Searchable in CAOLD
NEWS	5	Mar 20	INPADOC: PRODUCER WARNING ABOUT DATA DELAYS
NEWS	6	Mar 22	NEW FEATURES IN INPADOC - RANGE SEARCHING AND NEW SDI/UPDATE SEARCH FIELD
NEWS	7	May 1	Beilstein Abstracts on STN - FILE BABS
NEWS	8	May 1	RN CROSSOVER AND ANSWER SIZE LIMITS INCREASED
NEWS	9	May 1	AIDSLINE has been reloaded
NEWS	10	May 1	Searching Y2-K compliant Patent Numbers
NEWS	11	May 9	Sequence Similarity Batch Search in DGENE
NEWS	12	May 19	Weekly Statistics for New Entries now available in INPADOC
NEWS	13	May 22	CITED REFERENCES NOW AVAILABLE IN CAPLUS AND CA FILE
NEWS	14	May 22	POSTPROCESSING OF SEARCH RESULTS MAY BE AFFECTED BY ADDITION OF CITED REFERENCES TO CAPLUS, CA, REGISTRY, CASREACT, MARPAT, and MARPATPREV
NEWS	15	Jun 02	KOREAN PATENTS NOW IN CAS DATABASES

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FILE COVERS 1967 - 14 Jun 2000 VOL 132 ISS 25
FILE LAST UPDATED: 13 Jun 2000 (20000613/ED)

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=> s multilayer catalyst or multi layer catalyst

```
         62219 MULTILAYER
         16688 MULTILAYERS
         67877 MULTILAYER
                 (MULTILAYER OR MULTILAYERS)
        450922 CATALYST
        466050 CATALYSTS
        570036 CATALYST
                 (CATALYST OR CATALYSTS)
            54 MULTILAYER CATALYST
                 (MULTILAYER(W)CATALYST)
         62195 MULTI
             2 MULTIS
         62196 MULTI
                 (MULTI OR MULTIS)
        731696 LAYER
        341659 LAYERS
        904162 LAYER
                 (LAYER OR LAYERS)
        450922 CATALYST
        466050 CATALYSTS
        570036 CATALYST
                 (CATALYST OR CATALYSTS)
             4 MULTI LAYER CATALYST
                 (MULTI(W)LAYER(W)CATALYST)
L1           56 MULTILAYER CATALYST OR MULTI LAYER CATALYST
```

=> s fischer tropsch or hydrocarbon synthesis

```
         13109 FISCHER
```

```
            16 FISCHERS
         13113 FISCHER
                 (FISCHER OR FISCHERS)
          4083 TROPSCH
          4032 FISCHER TROPSCH
                 (FISCHER(W)TROPSCH)
        201963 HYDROCARBON
        191949 HYDROCARBONS
        297889 HYDROCARBON
                 (HYDROCARBON OR HYDROCARBONS)
        811400 SYNTHESIS
             1 SYNTHESISES
         41064 SYNTHESES
        834424 SYNTHESIS
                 (SYNTHESIS OR SYNTHESISES OR SYNTHESES)
           964 HYDROCARBON SYNTHESIS
                 (HYDROCARBON(W)SYNTHESIS)
L2         4694 FISCHER TROPSCH OR HYDROCARBON SYNTHESIS

=> s l1 and l2

L3            0 L1 AND L2

=> s multilayer? catalyst or multi layer? catalyst

         73949 MULTILAYER?
        450922 CATALYST
        466050 CATALYSTS
        570036 CATALYST
                 (CATALYST OR CATALYSTS)
            68 MULTILAYER? CATALYST
                 (MULTILAYER?(W)CATALYST)
         62195 MULTI
             2 MULTIS
         62196 MULTI
                 (MULTI OR MULTIS)
        926875 LAYER?
        450922 CATALYST
        466050 CATALYSTS
        570036 CATALYST
                 (CATALYST OR CATALYSTS)
             5 MULTI LAYER? CATALYST
                 (MULTI(W)LAYER?(W)CATALYST)
L4           71 MULTILAYER? CATALYST OR MULTI LAYER? CATALYST

=> d his


     (FILE 'HOME' ENTERED AT 10:07:02 ON 14 JUN 2000)

     FILE 'CAPLUS' ENTERED AT 10:07:31 ON 14 JUN 2000
L1            56 S MULTILAYER CATALYST OR MULTI LAYER CATALYST
L2          4694 S FISCHER TROPSCH OR HYDROCARBON SYNTHESIS
L3             0 S L1 AND L2
L4            71 S MULTILAYER? CATALYST OR MULTI LAYER? CATALYST

=> s l2 and l4
```

```
L5            0 L2 AND L4

=> s l2 and layer

         731696 LAYER
         341659 LAYERS
         904162 LAYER
                  (LAYER OR LAYERS)
L6           94 L2 AND LAYER

=> s l6 and (pore size or porous)

          82261 PORE
          45000 PORES
         110180 PORE
                  (PORE OR PORES)
         579922 SIZE
          76969 SIZES
         621765 SIZE
                  (SIZE OR SIZES)
          22593 PORE SIZE
                  (PORE(W)SIZE)
         128215 POROUS
L7            3 L6 AND (PORE SIZE OR POROUS)

=> d l7 ibib ab 1-3


L7   ANSWER 1 OF 3  CAPLUS  COPYRIGHT 2000 ACS
ACCESSION NUMBER:        1993:127939  CAPLUS
DOCUMENT NUMBER:         118:127939
TITLE:                   An Auger electron spectroscopy study of the
activation
                         of iron Fischer-Tropsch catalysts.
                         II.  Carbon monoxide activation
AUTHOR(S):               Sault, Allen G.; Datye, Abhaya K.
CORPORATE SOURCE:        Fuel Sci. Dep., Sandia Natl. Lab., Albuquerque, NM,
                         87185, USA
SOURCE:                  J. Catal. (1993), 140(1), 136-49
                         CODEN: JCTLA5; ISSN: 0021-9517
DOCUMENT TYPE:           Journal
LANGUAGE:                English
AB   Activation procedures can have a dramatic effect on the activity of
     Fe-based catalysts for Fischer-Tropsch (F-T)
     synthesis; CO conversion over a 100:3:0.2 (wt.) Fe-Cu-K catalyst can vary
     nearly by a factor of 3, depending on activation treatment.  In contrast,
     a 100:5:4.4:25 (wt.) Fe-Cu-K-SiO2 catalyst displays little dependence of
     F-T activity on activation treatment.  An ultra-high vacuum surface anal.
     chamber coupled to an atm. reactor has been used to measure the surface
     compn. of these catalysts after activation in CO at 280.degree., while
     transmission electron microscopy (TEM) and BET surface area measurements
     have been used to investigate catalyst morphol.  CO activation of the
     latter catalyst at 280.degree. results in partial redn. of Fe to a mixt.
     of FexO and Fe3O4, and an overall surface compn. very similar to that
     obtained by H activation at 220 or 280.degree., consistent with the
     invariance of F-T activity with activation treatment for this catalyst.
```

Activation of the former catalyst in CO at 280.degree. results in the formation of Fe carbide particles, growth of graphitic carbon (Cg) filaments, and formation of a thick, **porous**, Cg **layer** covering the carbide particles. Differences in F-T activity between the hydrogen- and CO-activated former catalyst are discussed in terms of surface compn. and catalyst morphol. The difference in sensitivity of the two catalysts to activation conditions is related to differences in the extent of redn. of the catalysts.

L7 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1991:125731 CAPLUS
DOCUMENT NUMBER: 114:125731
TITLE: Process for the preparation of surface-impregnated dispersed cobalt metal catalysts
INVENTOR(S): Mauldin, Charles H.; Riley, Kenneth L.
PATENT ASSIGNEE(S): Exxon Research and Engineering Co., USA
SOURCE: U.S., 6 pp. Cont.-in-part of U.S. Ser. No. 72,517, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4977126	A	19901211	US 1988-270596	19881114
US 4962078	A	19901009	US 1988-252215	19881003
CA 2012682	AA	19910921	CA 1990-2012682	19900321
AU 623756	B2	19920521	AU 1990-52208	19900327
AU 9052208	A1	19911003		
JP 03293036	A2	19911224	JP 1990-91933	19900406
US 5128377	A	19920707	US 1990-513372	19900423
EP 453674	A1	19911030	EP 1990-304549	19900426
EP 453674	B1	19940629		
R: BE, DE, FR, GB, IT, NL, SE				
AU 634019	B2	19930211	AU 1991-70104	19910131
AU 9170104	A1	19920813		
US 5545674	A	19960813	US 1995-377293	19950124

PRIORITY APPLN. INFO.:
US 1987-46649 19870507
US 1987-72517 19870713
US 1988-252215 19881003
US 1989-310258 19890213
US 1991-667993 19910312
US 1992-881935 19920511
US 1993-32916 19930318
US 1994-243436 19940513

AB A process for the prepn. of **Fischer-Tropsch** catalysts is described in which a catalytically effective amt. of Co is impregnated and dispersed as a film or **layer** on the peripheral outer surface of a particulate **porous** inorg. oxide support, esp. TiO2. The catalysts are prepd. by spraying a bed of the fluidized particulate support particles with a liq. contg. a dispersed or dissolved Co metal compd. upon the support particles. The operation is performed at specified operating conditions.

L7 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2000 ACS

ACCESSION NUMBER: 1986:507671 CAPLUS
DOCUMENT NUMBER: 105:107671
TITLE: On-line gas chromatographic analysis of light **Fischer-Tropsch** synthesis products
AUTHOR(S): Snel, R.
CORPORATE SOURCE: Chem. Eng. Res. Group, Counc. Sci. Ind. Res., Pretoria, 0001, S. Afr.
SOURCE: Chromatographia (1986), 21(5), 265-8
CODEN: CHRGB7; ISSN: 0009-5893
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A simple gas chromatog. system was developed for the rapid on-line anal. of light **Fischer-Tropsch** products. This involves a single chromatograph fitted with 2 columns, a **porous-layer** open-tubular column coated with KCl-deactivated alumina and a packed Poropak-Q column. The capillary column seps. the 16 most common C1-4 hydrocarbons and permits a reasonable anal. of the hydrocarbons in the C5-7 range. The packed column is used for the sepn. of CH4, CO, CO2, H2O, and MeOH. Retention characteristics for the anal. on the capillary column are presented. The total anal. cycle is 30 min.

```
=> s hydrocarbon? synthesis or Fischer Tropsch

        299241 HYDROCARBON?
        811400 SYNTHESIS
             1 SYNTHESISES
         41064 SYNTHESES
        834424 SYNTHESIS
                 (SYNTHESIS OR SYNTHESISES OR SYNTHESES)
           964 HYDROCARBON? SYNTHESIS
                 (HYDROCARBON?(W)SYNTHESIS)
         13109 FISCHER
            16 FISCHERS
         13113 FISCHER
                 (FISCHER OR FISCHERS)
          4083 TROPSCH
          4032 FISCHER TROPSCH
                 (FISCHER(W)TROPSCH)
L1         4694 HYDROCARBON? SYNTHESIS OR FISCHER TROPSCH

=> s l1 and layer?

        926875 LAYER?
L2          99 L1 AND LAYER?

=> s minimi? (3a) selectivity

         78307 MINIMI?
        117116 SELECTIVITY
          8766 SELECTIVITIES
        122004 SELECTIVITY
                 (SELECTIVITY OR SELECTIVITIES)
L3          52 MINIMI? (3A) SELECTIVITY

=> s minimi? C1- C4

         78307 MINIMI?
        121241 C1
         36463 C4
L4           0 MINIMI? C1- C4
                 (MINIMI?(W)C1(W)C4)

=> d his

     (FILE 'HOME' ENTERED AT 12:51:48 ON 14 JUN 2000)

     FILE 'CAPLUS' ENTERED AT 12:52:24 ON 14 JUN 2000
L1         4694 S HYDROCARBON? SYNTHESIS OR FISCHER TROPSCH
L2           99 S L1 AND LAYER?
L3           52 S MINIMI? (3A) SELECTIVITY
L4            0 S MINIMI? C1- C4

=> s l2 and l3

L5           0 L2 AND L3
```

```
=> s minimi? methane

         78307 MINIMI?
         94543 METHANE
          2359 METHANES
         95656 METHANE
                 (METHANE OR METHANES)
L6           2 MINIMI? METHANE
                 (MINIMI?(W)METHANE)

=> s methane selectivity

         94543 METHANE
          2359 METHANES
         95656 METHANE
                 (METHANE OR METHANES)
        117116 SELECTIVITY
          8766 SELECTIVITIES
        122004 SELECTIVITY
                 (SELECTIVITY OR SELECTIVITIES)
L7         134 METHANE SELECTIVITY
                 (METHANE(W)SELECTIVITY)

=> s l2 and l7

L8           0 L2 AND L7

=> s methane (3a) selectivity

         94543 METHANE
          2359 METHANES
         95656 METHANE
                 (METHANE OR METHANES)
        117116 SELECTIVITY
          8766 SELECTIVITIES
        122004 SELECTIVITY
                 (SELECTIVITY OR SELECTIVITIES)
L9         600 METHANE (3A) SELECTIVITY

=> s l2 and l9

L10          1 L2 AND L9

=> d l10 ibib ab


L10  ANSWER 1 OF 1  CAPLUS  COPYRIGHT 2000 ACS
ACCESSION NUMBER:        1980:197849  CAPLUS
DOCUMENT NUMBER:         92:197849
TITLE:                   Fischer-Tropsch synthesis over
                         freshly reduced iron-ruthenium alloys
AUTHOR(S):               Ott, G. L.; Fleisch, T.; Delgass, W. N.
CORPORATE SOURCE:        Sch. Chem. Eng., Purdue Univ., West Lafayette, IN,
                         47907, USA
SOURCE:                  J. Catal. (1979), 60(3), 394-403
                         CODEN: JCTLA5; ISSN: 0021-9517
DOCUMENT TYPE:           Journal
```

LANGUAGE: English
AB Surface anal. of unsupported FeRu alloys was accomplished using XPS (XPS) and secondary ion mass spectrometry (SIMS) after the catalysts were reduced in flowing H2 at 673 K for 4 h in a pretreatment chamber and introduced directly an ultrahigh vacuum instrument without exposure to the air. XPS lines show Fe and Ru to be metallic after redn. Quant. anal. of the first several **layers** using XPS shows enrichment of the surface region in Fe as expected. Anal. of the secondary ion emission as a function of compn. shows a marked decrease in the Ru+ emission from 97Ru3Fe compared to the pure Ru catalyst, suggesting alteration of the electronic properties of the surface upon addn. of a small amt. of Fe. Semiquant. anal. of the uppermost **layer** using SIMS suggests greater Fe enrichment in the 1st **layer** than the av. enrichment calcd. from XPS for the 1st several **layers**. The initial activity and selectivity of the catalysts for **Fischer-Tropsch** synthesis were measured at 1 atm and 573 K in 3.3H2 + CO at conversions below 3%. **Selectivity** to **methane** decreases through a min. with increasing Fe content in the 1st **layer**. High propylene and ethylene yields were found for the alloy catalysts. A marked increase in the selectivity of the catalysts to propylene and, particularly, ethylene for 3Fe97Ru compared to pure Ru correlates with the sharp changes in SIMS yields.

=> d his

(FILE 'HOME' ENTERED AT 12:51:48 ON 14 JUN 2000)

FILE 'CAPLUS' ENTERED AT 12:52:24 ON 14 JUN 2000
L1 4694 S HYDROCARBON? SYNTHESIS OR FISCHER TROPSCH
L2 99 S L1 AND LAYER?
L3 52 S MINIMI? (3A) SELECTIVITY
L4 0 S MINIMI? C1- C4
L5 0 S L2 AND L3
L6 2 S MINIMI? METHANE
L7 134 S METHANE SELECTIVITY
L8 0 S L2 AND L7
L9 600 S METHANE (3A) SELECTIVITY
L10 1 S L2 AND L9

=> s l2 and porous

128215 POROUS
L11 3 L2 AND POROUS

=> d l11 ibib ab

L11 ANSWER 1 OF 3 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1993:127939 CAPLUS
DOCUMENT NUMBER: 118:127939
TITLE: An Auger electron spectroscopy study of the activation

of iron **Fischer-Tropsch** catalysts.
II. Carbon monoxide activation

AUTHOR(S): Sault, Allen G.; Datye, Abhaya K.
CORPORATE SOURCE: Fuel Sci. Dep., Sandia Natl. Lab., Albuquerque, NM, 87185, USA
SOURCE: J. Catal. (1993), 140(1), 136-49
CODEN: JCTLA5; ISSN: 0021-9517
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Activation procedures can have a dramatic effect on the activity of Fe-based catalysts for **Fischer-Tropsch** (F-T) synthesis; CO conversion over a 100:3:0.2 (wt.) Fe-Cu-K catalyst can vary nearly by a factor of 3, depending on activation treatment. In contrast, a 100:5:4.4:25 (wt.) Fe-Cu-K-SiO2 catalyst displays little dependence of F-T activity on activation treatment. An ultra-high vacuum surface anal. chamber coupled to an atm. reactor has been used to measure the surface compn. of these catalysts after activation in CO at 280.degree., while transmission electron microscopy (TEM) and BET surface area measurements have been used to investigate catalyst morphol. CO activation of the latter catalyst at 280.degree. results in partial redn. of Fe to a mixt. of FexO and Fe3O4, and an overall surface compn. very similar to that obtained by H activation at 220 or 280.degree., consistent with the invariance of F-T activity with activation treatment for this catalyst. Activation of the former catalyst in CO at 280.degree. results in the formation of Fe carbide particles, growth of graphitic carbon (Cg)filaments, and formation of a thick, **porous**, Cg **layer** covering the carbide particles. Differences in F-T activity between the hydrogen- and CO-activated former catalyst are discussed in terms of surface compn. and catalyst morphol. The difference in sensitivity of the two catalysts to activation conditions is related to differences in the extent of redn. of the catalysts.

=> d l11 ibib ab 2-3

L11 ANSWER 2 OF 3 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1991:125731 CAPLUS
DOCUMENT NUMBER: 114:125731
TITLE: Process for the preparation of surface-impregnated dispersed cobalt metal catalysts
INVENTOR(S): Mauldin, Charles H.; Riley, Kenneth L.
PATENT ASSIGNEE(S): Exxon Research and Engineering Co., USA
SOURCE: U.S., 6 pp. Cont.-in-part of U.S. Ser. No. 72,517, abandoned.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4977126	A	19901211	US 1988-270596	19881114
US 4962078	A	19901009	US 1988-252215	19881003
CA 2012682	AA	19910921	CA 1990-2012682	19900321
AU 623756	B2	19920521	AU 1990-52208	19900327

AU 9052208	A1	19911003		
JP 03293036	A2	19911224	JP 1990-91933	19900406
US 5128377	A	19920707	US 1990-513372	19900423
EP 453674	A1	19911030	EP 1990-304549	19900426
EP 453674	B1	19940629		
R: BE, DE, FR, GB, IT, NL, SE				
AU 634019	B2	19930211	AU 1991-70104	19910131
AU 9170104	A1	19920813		
US 5545674	A	19960813	US 1995-377293	19950124
PRIORITY APPLN. INFO.:			US 1987-46649	19870507
			US 1987-72517	19870713
			US 1988-252215	19881003
			US 1989-310258	19890213
			US 1991-667993	19910312
			US 1992-881935	19920511
			US 1993-32916	19930318
			US 1994-243436	19940513

AB A process for the prepn. of **Fischer-Tropsch** catalysts is described in which a catalytically effective amt. of Co is impregnated and dispersed as a film or **layer** on the peripheral outer surface of a particulate **porous** inorg. oxide support, esp. TiO2. The catalysts are prepd. by spraying a bed of the fluidized particulate support particles with a liq. contg. a dispersed or dissolved Co metal compd. upon the support particles. The operation is performed at specified operating conditions.

L11 ANSWER 3 OF 3 CAPLUS COPYRIGHT 2000 ACS
ACCESSION NUMBER: 1986:507671 CAPLUS
DOCUMENT NUMBER: 105:107671
TITLE: On-line gas chromatographic analysis of light **Fischer-Tropsch** synthesis products
AUTHOR(S): Snel, R.
CORPORATE SOURCE: Chem. Eng. Res. Group, Counc. Sci. Ind. Res., Pretoria, 0001, S. Afr.
SOURCE: Chromatographia (1986), 21(5), 265-8
CODEN: CHRGB7; ISSN: 0009-5893
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A simple gas chromatog. system was developed for the rapid on-line anal. of light **Fischer-Tropsch** products. This involves a single chromatograph fitted with 2 columns, a **porous-layer** open-tubular column coated with KCl-deactivated alumina and a packed Poropak-Q column. The capillary column seps. the 16 most common C1-4 hydrocarbons and permits a reasonable anal. of the hydrocarbons in the C5-7 range. The packed column is used for the sepn. of CH4, CO, CO2, H2O, and MeOH. Retention characteristics for the anal. on the capillary column are presented. The total anal. cycle is 30 min.

DB Name	Query	Hit Count	Set Name
USPT,JPAB,EPAB,DWPI	118 and (fischer tropsch or hydrocarbon synthesis)	0	L19
USPT,JPAB,EPAB,DWPI	multilayer catalyst or multi layer catalyst	62	L18
USPT,JPAB,EPAB,DWPI	116 and layer$	11	L17
USPT,JPAB,EPAB,DWPI	115 and (pore size)	46	L16
USPT,JPAB,EPAB,DWPI	113 and (cobalt or ruthenium or iron or rhenium or osmium)	300	L15
USPT,JPAB,EPAB,DWPI	first pore surface area	0	L14
USPT,JPAB,EPAB,DWPI	fischer tropsch catalyst	409	L13
USPT,JPAB,EPAB,DWPI	hydrocarbon$ synthesis or l1	4202	L12
USPT,JPAB,EPAB,DWPI	l1 and interfacial layer	0	L11
USPT,JPAB,EPAB,DWPI	l1 and interficial layer	0	L10
USPT,JPAB,EPAB,DWPI	l6 and layer	9	L9
USPT,JPAB,EPAB,DWPI	l6 and residence time	2	L8
USPT,JPAB,EPAB,DWPI	l3 and l5	19	L7
USPT,JPAB,EPAB,DWPI	l3 and l5	19	L6
USPT,JPAB,EPAB,DWPI	synthesis gas or (carbon monoxide and hydrogen)	35007	L5
USPT,JPAB,EPAB,DWPI	l2 and (synthesis gas or carbon monoxide and hydrogen)	0	L4
USPT,JPAB,EPAB,DWPI	l1 and (porous structure or porous catalyst or porous support)	33	L3
USPT,JPAB,EPAB,DWPI	l1 and (porous structure or porous catalyst or porous support)	33	L2
DWPI,USPT,EPAB,JPAB	fischer tropsch	3648	L1

DB Name	Query	Hit Count	Set Name
USPT,JPAB,EPAB,DWPI	116 and layer$	11	L17
USPT,JPAB,EPAB,DWPI	115 and (pore size)	46	L16
USPT,JPAB,EPAB,DWPI	113 and (cobalt or ruthenium or iron or rhenium or osmium)	300	L15
USPT,JPAB,EPAB,DWPI	first pore surface area	0	L14
USPT,JPAB,EPAB,DWPI	fischer tropsch catalyst	409	L13
USPT,JPAB,EPAB,DWPI	hydrocarbon$ synthesis or 11	4202	L12
USPT,JPAB,EPAB,DWPI	11 and interfacial layer	0	L11
USPT,JPAB,EPAB,DWPI	11 and interficial layer	0	L10
USPT,JPAB,EPAB,DWPI	16 and layer	9	L9
USPT,JPAB,EPAB,DWPI	16 and residence time	2	L8
USPT,JPAB,EPAB,DWPI	13 and 15	19	L7
USPT,JPAB,EPAB,DWPI	13 and 15	19	L6
USPT,JPAB,EPAB,DWPI	synthesis gas or (carbon monoxide and hydrogen)	35007	L5
USPT,JPAB,EPAB,DWPI	12 and (synthesis gas or carbon monoxide and hydrogen)	0	L4
USPT,JPAB,EPAB,DWPI	11 and (porous structure or porous catalyst or porous support)	33	L3
USPT,JPAB,EPAB,DWPI	11 and (porous structure or porous catalyst or porous support)	33	L2
DWPI,USPT,EPAB,JPAB	fischer tropsch	3648	L1

DB Name	Query	Hit Count	Set Name
USPT,JPAB,EPAB,DWPI	l6 and layer	9	L9
USPT,JPAB,EPAB,DWPI	l6 and residence time	2	L8
USPT,JPAB,EPAB,DWPI	l3 and l5	19	L7
USPT,JPAB,EPAB,DWPI	l3 and l5	19	L6
USPT,JPAB,EPAB,DWPI	synthesis gas or (carbon monoxide and hydrogen)	35007	L5
USPT,JPAB,EPAB,DWPI	l2 and (synthesis gas or carbon monoxide and hydrogen)	0	L4
USPT,JPAB,EPAB,DWPI	l1 and (porous structure or porous catalyst or porous support)	33	L3
USPT,JPAB,EPAB,DWPI	l1 and (porous structure or porous catalyst or porous support)	33	L2
DWPI,USPT,EPAB,JPAB	fischer tropsch	3648	L1